

Appl. No. 10/797,939
Amd. Dated May 24, 2006
Reply to Office Action Dated December 2nd 2005

REMARKS/ARGUMENTS

Please reconsider the application in view of the above amendments and the following remarks. Claims 1-9 remain pending in the application.

Drawings

The Examiner objected to the drawings under 37 CFR 1.83(a) for failing to show each item claimed. This objection is respectively traversed. Figure 7 of the current application does indeed show the items claimed.

As stated in the specification:

[0001] "FIG. 7 shows one embodiment of a pressure compensation system in accordance with one embodiment of the invention. The seal housing 716 includes a flexible membrane 710 that enables pressure to be transmitted to the interior of the seal housing 716. When the pressure outside of the seal housing 716 increases, the flexible membrane 710 flexes inwardly, thereby increasing the pressure on the inboard side of the seal 706. Conversely, when the pressure outside of the seal housing 716 decreases, the flexible membrane 710 flexes outwardly, thereby decreasing the pressure on the inboard side of the seal 706.

[0002] The flexible membrane 710 is located in the seal housing 716 to be proximate the seal 706. This significantly reduces the distance over which the pressure signal must be transmitted to compensate the pressure on the inboard side of the seal 706. By reducing the distance over which the signal must travel, the response time of the pressure compensation system is significantly increased.

[0003] In the embodiment shown, the flexible membrane 710 is coupled to a passageway 712 that leads to the interior of the seal housing 716. In other embodiments, a flexible membrane may be in contact with both the mud outside the seal housing and with the oil

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inside the seal housing without the need for a passage way, *i.e.*, the flexible membrane 710 may form part of a wall of a seal housing.

[0004] The flexible membrane 710 may be made of any material that will flex enough to transmit pressure to the interior of the seal chamber 716. For example, the flexible membrane 710 may be constructed of an elastomer or a thin piece of metal. Additionally, the geometry (*i.e.*, the shape and size) of the membrane 710 may be selected based on the particular application or operating condition. For example, the membrane 710 may extend around the entire circumference of the seal housing 716, forming a frustoconical shape. In other embodiments, the membrane 710 may form a window over only a portion of the seal housing 716. The geometry and the material of the membrane 710 may be selected for specific applications and design considerations."

In view of the above, Applicant respectfully asks that the drawing objection be withdrawn.

SPECIFICATION

Abstract

The Examiner objected to the Abstract for including the title of the invention. The applicant has herein amended the abstract to delete the title. Applicant respectfully requests that this objection be re-considered and withdrawn.

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CLAIM OBJECTIONS

Rejections Under 35 U.S.C § 102

Claims 1-9 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Tschirky et al et al. (US 4,329,127). This rejection is respectfully traversed.

The claims at issue each recite limitations not taught by any of the references of record. Tschirky fails to disclose, the limitation in the pending claims of, a "wherein the dynamic seal seals around a part that is allowed to move relative to the seal housing". The dynamic seal (177) of Tschirky as described by the examiner in the office action is described in the specification of Tschirky as "engaged in the bore 63" Column 8 Line 58. It is further described as being "secured in place by a suitable number of circumferentially spaced fasteners 178b" Column 8, line 61 onwards.

Applicant, therefore, submits that Tschirky fails to anticipate any of the pending Claims, and requests that the rejection under 35 U.S.C. 102(b) be reconsidered and withdrawn.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Applicant believes this reply to be fully responsive to all outstanding issues and place this application in condition for allowance. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned at the telephone number listed below.

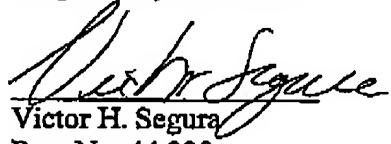
This paper is submitted in response to the Office Action dated December 2nd, 2005 for which the three-month date for response is March 2nd, 2006. A request for a three (3) month extension of the time to respond to the Official Action is hereby made, bringing the date for

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response to June 2nd, 2006. Please apply any charges not covered, such as the three-month extension fee, or any credits, to Deposit Account 50-2898 (Reference Number 19,0311).

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Respectfully submitted,


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Attachments: